Patent Application of

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For

DEVICE FOR CLOSING BAGS

CROSS REFERENCE TO RELATED APPLICATIONS: Provisional Patent Application 60/394,923

FEDERALLY SPONSORED RESEARCH: Not Applicable.

SEQUENCE LISTING OR PROGRAM: Not Applicable.

BACKGROUND OF THE INVENTION – FIELD OF INVENTION

This invention relates to a device to close bags, and particularly large multi-layered paper bags or large plastic bags typically containing from ten pounds to upward of fifty pounds of contents such as the type in which dry pet food, gardening and landscaping products and bulk foods are sold.

BACKGROUND OF INVENTION

Buying in bulk typically results in a lower cost per unit. Accordingly, oversized bags and sacks have become a common sight on the consumer landscape for items such as pet foods, gardening and landscaping products, bulk foods, cat litter, construction materials and a variety of other products.

However, buying in bulk leads to storage issues for the consumer; more product must be stored and for a longer period of time. In addition, the opening and closing of the subject bag is more frequent over the life of the bag for large bags resulting in ineffectiveness of many existing closure devices as well as damage to the subject bag. Moreover, many devices in the prior art do not effectively scale-up to address the particular difficulties of closing and maintaining closure of large sacks and bags. The present invention is designed to address these issues for large bulk bags, while also being useful for closing smaller bags.

DISCUSSION OF THE PRIOR ART

A common way in which to close bags is by a spring loaded clip, commonly referred to as a "bag clip" or a "chip clip." U.S. Pat. No. 4,394,791 to Groth (1983) and U.S. Pat. No. 5,802,677 to Dorman (1998) disclose such a device which through use of a spring interposed between opposing T-shaped members the device clamps down over the top of a folded bag. These devices are ubiquitous and are effective for their intended purpose when utilized with small bags (for example, such as 12 oz. potato chip bags) but when utilized on large, multi-layered bulk bags they fail to securely close the bags for a number of reasons: (i) the dimension between the opposing T-members is frequently not wide enough to accommodate the greater thickness of the folded-over multi-layer bulk bag; (ii) the spring pressure is insufficient to maintain closure in light of the greater mass inside the bag, and (iii) scaling up the device to address the foregoing shortcomings would result in the need for a very strong spring pressure resulting in a device that is difficult to use.

U.S. Patent No. 5,598,608 to Naslund (1997) represents one version of an alternative to sealing bags. This device uses a hinged clip with locking clasp between which the bag opening is placed to seal the opening. This device is also effective for its intended

purpose, but again functions best with small bags and does not perform well when scaled up to accommodate the larger bags which are the primary target of the present invention.

In addition to the widely available devices described by the aforementioned patents and similar devices, the subject matter of bag closure devices has proven a fertile ground for the inventive mind. Among the great variety of approaches to addressing this problem are devices and methods described in patents such as U.S. Patent No. 5,231,735 to Paxton (1993), U.S. Patent No. 5,305,500 to Tucker (1994), U.S. Patent No. 3,760,463 to Schnieder (1973), U.S. Patent No. 3,259,302 to Rocchisani (1966) and U.S. Patent No. 4,947,523 to Robbins, III (1990), and U.S. Patent No. 3,164,250 to Paxton (1965) to name a few. All the foregoing devices, which take a great variety of forms, are generally effective for their intended purpose, but typically do not scale well when applied to larger bags, tend to lose the effectiveness with repeated usage due to wear of the plastic components, or cause rips or tears on the subject bag being closed with repeated use on that bag.

In response to these shortcomings, existing bag closing devices are often not used at all on larger bags. Many garden sheds, garages and kitchen pantries can be found with large bulk bags stacked on top of one another to secure their openings, or large food bags topped with heavy cans to secure the bag opening, or worse, spilled contents can be found when bags have toppled without a secure means of closing their open ends.

The present invention has been designed specifically for use with large bulk bags, is easily scalable, is easy to use, does not damage the subject bag through repeated use and continues to perform well after repeated use.

BACKGROUND OF INVENTION – OBJECTS AND ADVANTAGES

Accordingly, the objects and advantages of the present invention are to provide a bag closure device for large bulk bags that:

(a) is scalable for a variety of bag sizes;

(b) maintains its effectiveness through repeated use;

(c) does minimal damage to the subject bag on which it is used, even with repeated use;

(d) offers improved product protection; and

(e) is easy to use.

Further objects and advantages of my invention will become apparent from a consideration of the drawings and ensuing description.

SUMMARY

The present invention is a bag closure device comprised of an elongated piece of flexible material such canvas, webbing or other sturdy material onto which hook and loop or Velcro™ is sewn, glued or otherwise attached and which includes on one end a ring, dowel or other means by which the user can firmly grasp and close the device in order to assure effective closure of the subject bag. The device is used by wrapping the device around the opening of the bag and cinching or bringing together the opposing ends of the device to interlock the Velcro™ or hook and loop material. The flexibility of the

material used in the device permits use on a wide variety of sizes of bags and avoids sharp or hard edges that may damage the subject bag through repeated use.

DRAWINGS – FIGURES

FIG. 1 shows the device in use on a bag;

FIG. 2 shows a side elevation view of the device;

FIG. 3 is a side elevation view of the side opposite that shown in FIG. 2;

FIG. 4 is a cross-sectional view referenced as 4 – 4 in FIG. 1. For purposes of clarity, the bag around which the device is wrapped is not depicted in FIG. 4.

DETAILED DESCRIPTION

Preferred Embodiment

Referring now to the drawings, the device and its use is generally depicted in Figure **1**. The device is comprised of a flexible strap, typically a webbing or canvas material **14**, typically one to four inches wide and five to eighteen inches long. On one end of the strap **16** is attached a grasping means such as a ring **15**, which may be made from plastic, metal or other sturdy material, or other device such as a dowel or loop. In the embodiment presented, said ring **15** or other grasping means is attached to the device by wrapping a strip of flexible material **16** around said ring **15** or other means which is folded back under said strip **16** and fixed into place with stitching **17**, glue or other similar means. On the opposing end of the strap from where the ring **15** or other grasping means is located, a segment of hook component **18** of the hook and loop material, which

segment **18** is typically the same width as the flexible strap **14**, but typically is shorter than said strap's **14** length, is sewn **17** or glued at the end of such strap **14**. As seen in Figure **3**, the opposing side of the strap from that on which the hook segment **18** is placed, is covered by a segment of loop component **19** of the hook and loop material, which loop segment **19** is typically the same width of the strap **14** and substantially the same length of the strap **14**, although such loop segment **19** may be shorter than the length of the strap **14**. The device also functions with the hook and loop segments transposed from the presentation described above.

The device is utilized by grabbing the ring **15** or other grasping means in one hand, and the end of the device on which the hook segment **18** is located in the other hand. The strap is then wrapped around the opening of the bag **12** in a manner that as the two grasped ends are brought together to engage the hook component **18** and the loop component **19**, the throat of the bag opening is cinched in the manner depicted in Figure **1**. Use of the ring **15** or other grasping means permits a secure grip to firmly cinch the device around the subject bag for even large, sturdy bags and sacks. To release the device from the bag **12**, one simply pulls outward on the ring **15** or other grasping means, thereby releasing the hook segment **18** from the loop segment **19** and the bag **12** will open.

In describing the above embodiments, certain terms and specifications have been used in a generic sense and not for purposes of limitation. It will also be understood that various changes in the details, materials and arrangements of the parts herein described and illustrated in order to explain the nature of the invention may be made by those skilled in the art within the principle and scope of the invention as expressed in the appended claims.